

THE ATARI® 1200XL™ HOME COMPUTER

OWNER'S GUIDE



ATARI®

INTRODUCTION AND CONTENTS

ATARI welcomes you to the fascinating world of home computing.

Your new ATARI 1200XL Home Computer is one of the most powerful and versatile small computers you can buy for the home. It's a practical computer with a functional, low-profile design that complements any home environment.

The information in this guide will make your transition into the world of home computing smooth and enjoyable.

First, you'll find easy-to-follow instructions for connecting your ATARI 1200XL Computer to your television set—it's no more complicated than hooking up an antenna to your TV. Then you'll learn what to do after you turn the computer on. Your ATARI 1200XL Computer's key features, including its keyboard and built-in diagnostic self-tests, are described in detail.

"Where To Go From Here? There's a World of Possibilities" (page 13) offers valuable information that will help you pick accessories and ready-to-use programs for your new computer.

You'll also find a copy of the latest ATARI catalog packed with your ATARI 1200XL Computer. The ATARI catalog is an excellent guide to the world of ATARI Home Computer products.



YOUR ATARI 1200XL HOME COMPUTER CONSOLE	3
CONNECTING YOUR ATARI 1200XL HOME COMPUTER TO YOUR TELEVISION	5
PUTTING YOUR ATARI 1200XL HOME COMPUTER THROUGH ITS SELF-TESTS	7
THREE WAYS TO USE THE KEYBOARD	9
WHERE TO GO FROM HERE? THERE'S A WORLD OF POSSIBILITIES	13
BUILD THE SYSTEM YOU WANT	15
GETTING TOGETHER WITH OTHER ATARI HOME COMPUTER OWNERS	17



**YOUR ATARI 1200XL
HOME COMPUTER
CONSOLE**

▲ **OPTION and SELECT Keys**

These keys let you choose among the variations within a program

▲ **Special-Function Indicators**

These light up when your computer's keyboard has been deactivated (L1) or is in the international character set (L2)

▲ **Power On Indicator**

A quick glance lets you see whether your computer is on or off

▲ **Power On/Off Switch**

▲ **RESET Key**

Stops a program, then restarts it from the beginning

▲ **Cartridge Slot**

Plug-in cartridges provide quick and easy program loading

▲ **Joystick or Paddle Controller Jacks**

One or two players can challenge the computer—or each other—through these connectors

▲ **START Key**

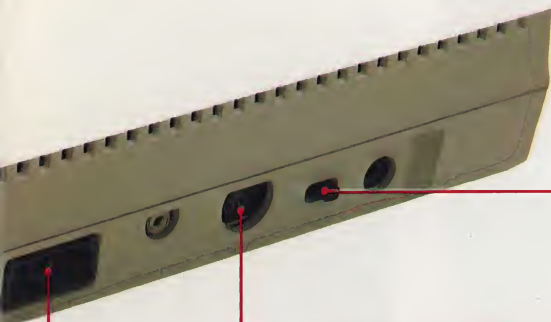
Starts a game or program

▲ **ESC Key**

Moves you from one menu to another in many ATARI programs

▲ **CONTROL Key**

Controls a variety of features when pressed simultaneously with another key



▲ **TV Channel Select Switch**

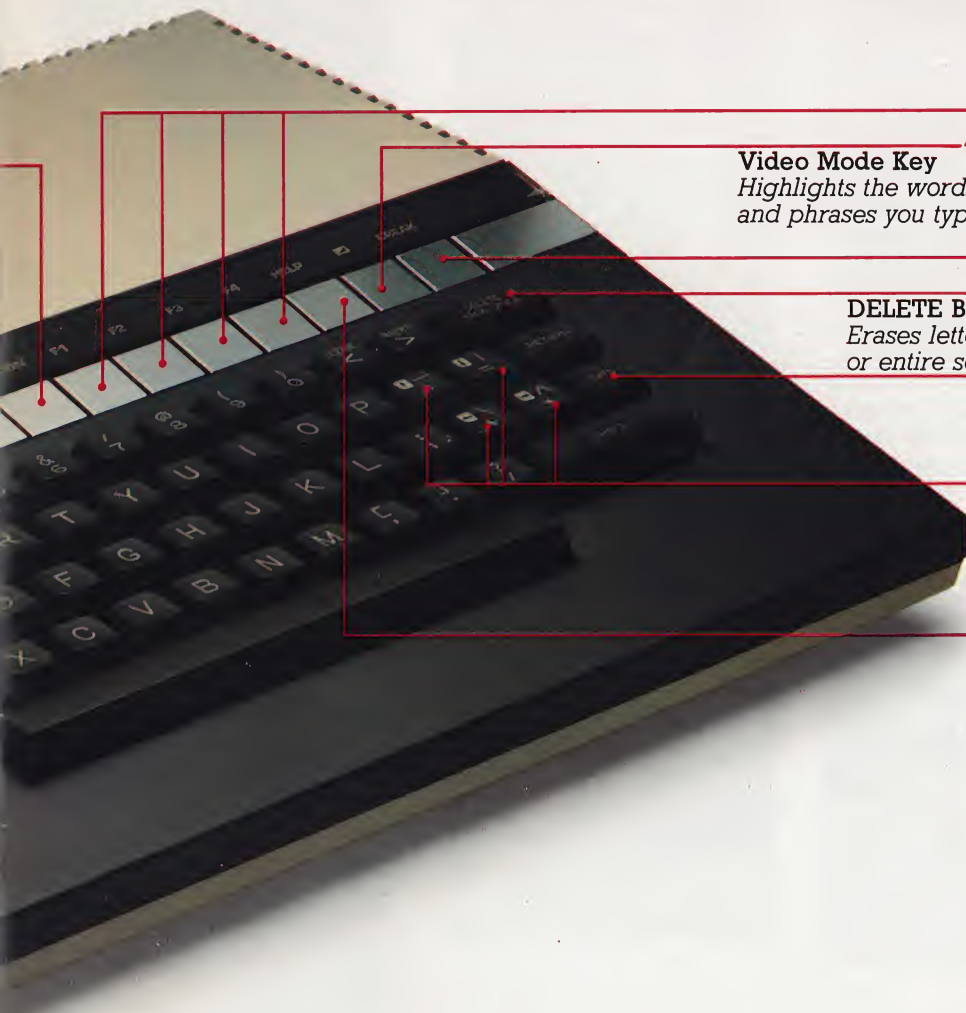
Lets you pick between channel 2 or 3 for the clearest picture possible

▲ **Television Monitor Jack**

Provides access to a monitor's superior color reproduction

▲ **Serial Input/Output Ports**

Lets you connect peripheral equipment such as disk drives, program recorders, or printers to your computer



▲ **Video Mode Key**

Highlights the words and phrases you type

▲ **Special-Function Keys**

Many of your computer's operations—single-key cursor movement, for example—are controlled by F1, F2, F3, and F4

▲ **DELETE BACK SPACE Key**

Erases letters, words, or entire sentences

▲ **BREAK Key**

Interrupts certain functions of the computer

▲ **CAPS Key**

Lets you type all uppercase letters

▲ **↑, ↓, ←, → Keys**

When used in conjunction with CONTROL, these keys move the cursor up, down, left, and right

▲ **HELP Key**

Initiates your computer's diagnostic self-tests

CONNECTING YOUR ATARI 1200XL HOME COMPUTER TO YOUR TELEVISION

Your ATARI 1200XL Home Computer is easy to set up. It comes with everything you need to get your system running: a TV Switch Box and connecting cable to connect the computer to your television set and an AC Power Adapter. And the only tool you'll need is a screwdriver.

The ten easy steps on these pages show you how to connect your ATARI 1200XL Home Computer to your television set.

INSTALLING THE TV SWITCH BOX

1 Disconnect the present antenna or cable TV line from your television set and reconnect it to the side of the TV Switch Box labeled *ANTENNA*. If the antenna line is a flat, twin-lead cable, connect it to the terminals marked 300 OHM on the switch box. If it's a round cable—a coaxial cable from an external antenna or a thin cable from a built-in antenna—attach it to the threaded connector marked 75 OHM.



2 Connect the short, twin-lead cable on the TV Switch box to the VHF connection on your TV set. If the VHF connection on your set has two screw-type terminals, secure the two cable leads to the terminals. If the VHF connection on your TV is a round threaded terminal, the TV Switch Box cable must be attached to the adapter supplied with your TV set.

First, connect the twin leads of the TV Switch Box cable to the two screw-type terminals on the adapter. Then slip or screw the adapter onto the threaded terminal on your TV set, making sure that the pinlike projection in the adapter makes contact. (If no VHF adapter was supplied with your TV set, you can purchase one at a local video store.)



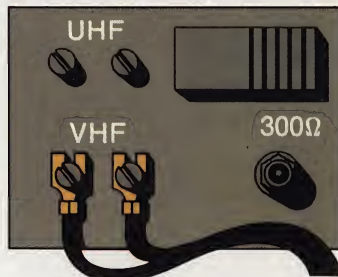
3 Peel off the protective cover from the self-adhesive square on the TV Switch Box and press the switch box to the back of your television set so it sticks to the cabinet.

If you've connected the TV Switch Box to a flat, twin-lead cable, you're now finished installing the TV Switch Box; go to step 5.



4 If you've connected the TV Switch Box to a round (75-OHM) cable and you did not use the adapter described in step 2, you may need to adjust the antenna terminal on your TV set so it can accept the 300-OHM signal from the TV Switch Box. Make the necessary adjustments as shown in the illustrations.

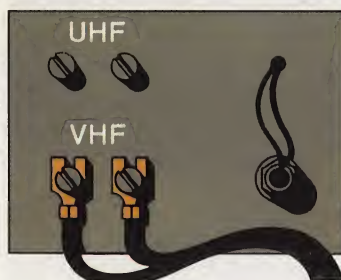
If the back of your set looks like this, push the switch to the 300-OHM (300Ω) position.



If it looks like this, loosen the screws holding the U-shaped slider and move the slider to the position marked 300 OHM (or 300Ω).



If it looks like this, insert the tiny wire into the hole in the center of the antenna terminal.



CONNECTING YOUR COMPUTER CONSOLE TO THE TV SWITCH BOX

5 Plug one end of the connecting cable into the terminal marked **COMPUTER** on the TV Switch Box. Plug the other end into the jack labeled **SWITCH BOX** on your computer.



6 Move the sliding switch on the TV Switch Box to the **COMPUTER** position. (Don't forget to slide this switch back to the TV position when you're finished using your computer and want to watch regular TV programming.)

7 Connect the AC Power Adapter to an electrical outlet. The cable with the round plug slips into the **POWER IN** jack on the back of your computer. The standard two-pronged plug goes into a wall outlet.



8 Turn on your TV set and tune it to Channel 2 or 3—which ever channel has the weakest signal in your area.

9 Set the Channel Select Switch on the back of the computer console (it's next to the **POWER IN** jack) to the same channel. After you turn on your computer, you may need to adjust the fine-tuning knob on your TV set to improve reception.

10 Your ATARI 1200XL Home Computer is now ready to be turned on. The main power switch is located on the left side of the computer console behind the cartridge slot. A few seconds after you turn your computer on, you'll be greeted by the word **ATARI** pulsating with a rainbow of rapidly changing colors.

If you leave the computer on one display long enough, you may notice the colors on your TV screen changing periodically. This is normal and occurs to protect your TV set.

Please note, also, that when you turn off your ATARI 1200XL Computer to reload a program, you must wait 3 to 5 seconds before turning it back on.

GOT A
PROBLEM?



If the word **ATARI** doesn't appear when you turn your computer on, check over all the previous steps. Make sure that all cords and cables are plugged securely and that power is coming into the system. (The red **Power ON/OFF** light located at the far left of the console above the keyboard should be on.) Try adjusting the fine-tuning knob on your TV. If you still don't get the proper display, your computer may need servicing. For the location of the nearest ATARI Factory Authorized Service Center, contact your ATARI retailer or call ATARI Customer Service toll-free at the number listed on your warranty card.

**PUTTING YOUR ATARI
1200XL HOME COMPUTER
THROUGH ITS SELF-TESTS**

Whenver you turn your new ATARI 1200XL Computer on, it automatically tests itself—then lets you double check it with a series of built-in self-tests that help ensure proper operation.

These tests check to see if the computer's memory, sound and colors, and keyboard are working properly. Before you run any software you purchased for your ATARI 1200XL Computer, you should remove any cartridge, and put the computer through the entire self-test routine.

Thereafter, you'll need to run the self-tests only periodically, because each time your computer is "powered up," the computer runs a quick self-test on its memory circuits. This test accounts for the slight

delay that occurs between the moment you turn the computer on and when the word ATARI appears on the TV screen.

If the memory circuits ever fail the test, the first thing you'll see on your TV screen are the words MEMORY TEST and several red and green squares and rectangles. (Any external software—cartridge, diskette or cassette—that you try to plug or load into the computer will be ignored.)

This means the computer needs service, and you should contact your ATARI Home Computer retailer or Factory Authorized Service Center.

**THE
HELP KEY**

The **HELP** key lets you initiate your computer's self-tests. Pressing **HELP** once while the word ATARI is on your TV screen displays the self-test options—ALL TESTS, MEMORY, AUDIO-VISUAL, or KEYBOARD—on your screen.



Press **SELECT** to choose which test you want, then press **START** to begin the test. Press **HELP** a second time to return to the SELF-TEST menu.

When you select **ALL TESTS**, the computer first checks its memory circuits. The audio-visual and keyboard tests follow automatically, with the computer generating random input to the keyboard during the latter test.

Each self-test is repeated indefinitely by your computer unless you press **HELP** to return to the menu or **RESET** to stop all tests and return to the word **ATARI**. When you select **ALL TESTS**, all three tests are run repeatedly until you press **HELP** or **RESET**.

The **HELP** key also performs other functions with some ATARI software products. Consult the individual program user's guide for its exact function.

MEMORY TEST

When you select the **MEMORY** self-test, you're telling your computer to check both its Read-Only Memory (ROM) and Random-Access Memory (RAM) circuits.

ROM is permanent, noneraseable memory in which your computer's operating system is stored. If anything is

wrong with it, your computer may not operate properly. RAM is the memory your computer has available for programs you load into it or write yourself.



Two rectangular color bars appear on your TV screen while the ROM is being tested. The bars turn green if ROM is found to be in good condition. If either color bar turns red at the end of the test, your computer's ROM is malfunctioning, and you should contact your ATARI Home Computer retailer or Factory Authorized Service Center.

During the RAM test, 48 small color squares appear one by one on your screen. Each square represents a portion of RAM that is actively being used by your computer (the remaining 16K is accessible only with certain software programs). As each section of RAM is tested, the corresponding square turns white, then green if the section is good or red if the section is bad, and the L1 and L2 indicators on the computer go on and off alternately.

It is important that all of the squares turn green. This means the RAM in your computer is functioning properly.

AUDIO-VISUAL TEST

The **AUDIO-VISUAL** self-test checks your ATARI 1200XL Home Computer's four sound voices and color capability. During the test, a musical staff and treble clef appear on the screen above the number of the voice under test. Six notes are played and displayed sequentially on your TV screen. The six notes are repeated once for each music voice.



If a voice number appears but you don't hear music, or if one of the six notes played sounds off-key, that voice is not working properly.

The colors displayed should be consistent from test to test.

KEYBOARD TEST

A keyboard layout is displayed on your TV screen when you initiate this test. When you press a key on your keyboard, the corresponding key on the screen flashes in inverse video (a blue character on a white background) and a note sounds. The space bar



and special-function keys are already in inverse video, so pressing one of them changes the matching key on the screen to normal video. If pressing a key fails to evoke a response on the TV screen, that key is not working.

The **SHIFT** and **CONTROL** keys flash only when pressed simultaneously with another key.

Please note that the **BREAK**, **HELP**, and **RESET** keys do not flash or sound a note when pressed. **HELP** returns you to the SELF-TEST menu while **RESET** takes you back to the word **ATARI**.

THREE WAYS TO USE THE KEYBOARD

With a few exceptions, your ATARI 1200XL Computer keyboard's layout—the numbers, letters, and symbols—is identical to that of a conventional typewriter.

You'll quickly discover, however, that the keyboard of your ATARI 1200XL Home Computer has a wide range of additional capabilities. You can change text at will on your screen, draw with special graphics characters, and display certain international language characters on your TV screen.

The next 4 pages describe the various ways you can employ the special features of the keyboard to make the most efficient use of your ATARI 1200XL Home Computer. You'll want to keep this guide handy for future reference when you're working with specific programs.



KEYBOARD EDITING

If you've used a typewriter, you'll know how to use the keyboard of your ATARI 1200XL Computer. The **SHIFT** key capitalizes letters, **RETURN** moves the cursor to the left margin, and **TAB** moves the cursor quickly across your screen to predetermined stops.

Beyond these basics, there are keys that can unlock other powers within your ATARI 1200XL Computer. The **CONTROL** and **SHIFT** keys play important roles in screen editing and in generating both graphics and international characters. They can help you move the cursor, delete or insert individual characters or entire sentences, or change from uppercase to lowercase letters.

The chart on this page describes the function of each special key and details the various combinations of keys used to edit programs, words, or paragraphs, to move the cursor, and to change the way information is displayed on the screen.

Since the standard key functions are sometimes redefined by certain programs, always consult your program user's guide for further help.



The white square you see on the screen is the *cursor*; it shows you "where you are" on the display.

When you use **CONTROL** or **SHIFT** in combination with another key, press the two keys simultaneously.

RESET



Stops the computer in the middle of what it's doing and restarts the program from the beginning.

START



Usually tells the computer to begin running a game or program; refer to the individual program instructions for its exact function.

SELECT



Often used to select one of several applications within a program; its function varies from program to program—refer to the individual program instructions for its exact use.

F1



or



Moves the cursor up one line without changing the program or display.

F2



or



Moves the cursor down one line.

F3



or



Moves the cursor one space to the left.

F4



or



Moves the cursor one space to the right.

HELP



Runs your ATARI 1200XL Computer through a series of self-tests when the word ATARI is on the TV screen. Other functions depend on the program in use—refer to the individual program instructions.



Video mode Usually switches the TV display of entered text from normal to inverse video (blue character on white background) and back again. (With some ATARI software products, this key is referred to as the **⌘** key).

BREAK



Usually interrupts whatever function the computer is performing; refer to individual program instructions for its exact function.



Depends on the program; for example, pressing **ESC** may be used to take you from one menu to another.



Allows you to insert a space in some programs. Characters may be inserted by typing over the inserted space.



Moves the cursor back one space, deleting what was typed. If held down, it continues deleting characters.



Deletes from the position of the cursor to the beginning of a line in some programs.

CONTROL



Freezes the TV display produced when you list a program. This allows the program to be read easier. Press **CONTROL 1** a second time to restart the program list.

CONTROL



Sounds a buzzer.

CONTROL



Marks the end-of-file for input from the keyboard.

SHIFT



Inserts one program or text line at a time.

CONTROL



Deactivates the computer keyboard (**L1** is on when the keyboard is deactivated). This lets you leave the computer on without worrying about anyone else changing your work. Press **CONTROL F1** a second time to reactivate the keyboard.

CONTROL



Turns off the computer's output to your TV screen, which allows the 1200XL to work about 25 percent faster. Press any key except **SHIFT**, **BREAK**, **CONTROL**, **OPTION**, **START**, or **SELECT** to turn the screen display on again.

CONTROL

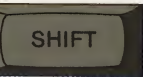


Deactivates the typewriter key-click audio output to your TV or monitor speaker. Other program-generated sounds will still be produced. Press **CONTROL F3** a second time to turn the key-click sound back on.

CONTROL



Switches the TV display to the international language characters. See page 12, "International Character Set," for details. Press **CONTROL F4** a second time to return to the regular keyboard output.



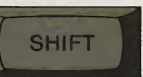
Deletes the text or program line the cursor is on.



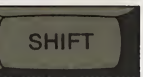
Alternates the keyboard output between all upper and lowercase letters. In some programs, you must press **SHIFT CAPS** while others do not allow you to switch between the two (uppercase only).



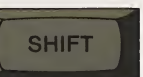
Locks **CONTROL** in the "down" position. Press **SHIFT** to unlock.



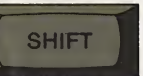
Moves the cursor to the upper left corner of the screen (the "home" position).



Moves the cursor to the lower left corner of the screen.



Moves the cursor to the beginning of the line it's currently on.



Moves the cursor to the end of the line it's currently on.

GRAPHICS CHARACTERS

A variety of graphics characters is built into your ATARI 1200XL Computer's keyboard. Pressing **CONTROL** and **F4** simultaneously switches your display between the graphics and international characters. Graphics characters allow you to build graphs, design charts, and draw pictures. The

chart on this page shows the 29 characters available and the key you must press—in combination with **CONTROL**—to display each one.



INTERNATIONAL LANGUAGE
CHARACTER SET

An international language character set is built into the keyboard of your ATARI 1200XL Computer. Pressing **CONTROL** and **F4** simultaneously switches your computer's display between the international and graphics characters (see page 11). The chart on this page shows the international characters

available and the key you must press—in combination with **CONTROL**—to display each one.



WHERE TO GO
FROM HERE?
THERE'S A WORLD
OF POSSIBILITIES

SOFTWARE FOR YOUR
ATARI 1200XL

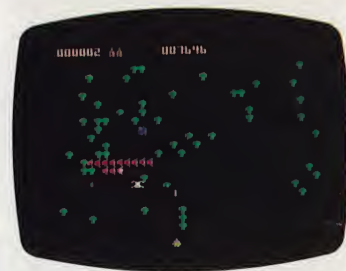
Without software, computers are little more than elaborate electronic gadgets.

It is software—the step-by-step list of instructions also known as a program—that adapts your computer's abilities to a specific job, whether it's

storing names and addresses, becoming your personal bookkeeper, or giving you a video arcade at home.

It's up to you to decide which ready-to-use software you'll need to take your ATARI 1200XL Computer beyond the self-tests. There are a number of factors you should study, however, in looking for software to make your computer work most effectively.

You'll want to consider costs, of course, not only of the software itself (cartridge, cassette or diskette), but also of the additional hardware (program recorder or disk drive) that you may need to use the software. Your personal interests, however, will play a leading role in your selection of software.



You'll need to ask some important questions: Are there children in your family who will benefit from Atari's many educational programs? Are you trying to make your home business more profitable? Will you want to use your computer to write reports? Will your computer also serve as an entertainment center?



SOFTWARE DICTATES THE PERIPHERALS YOU'LL NEED

The kind of software—cartridge, cassette or diskette—you intend to use with your computer will play a major role in deciding what peripherals such as disk drives or printers you want to add to your system.

If you plan to just use cartridges, for example, you may need only joysticks or paddle controllers. Cartridges plug directly into the slot on the left side of your ATARI 1200XL Computer, so no additional peripheral is required to run them.

Most of ATARI's popular video games come on cartridges, which provide almost instant program loading and are

practically indestructible. But because cartridges are ROM-like devices, they won't store information.

If you *do* want to save data—or decide to purchase any of ATARI's powerful ready-to-use software programs on cassettes or diskettes—then you will need to consider buying additional hardware.

BUILD THE SYSTEM YOU WANT

Start with a pair of joystick controllers. Add a program recorder or disk drive. Then a printer . . . perhaps a modem.

There's an ATARI accessory device that will make your computer more versatile and efficient, whether it's playing a video game, writing a report, or hooking up to a home-information network.

The first piece of hardware you'll probably consider is a program recorder or disk drive. They both provide safe and reliable storage for

information you want to save when you're using your computer. Each has its own advantages.

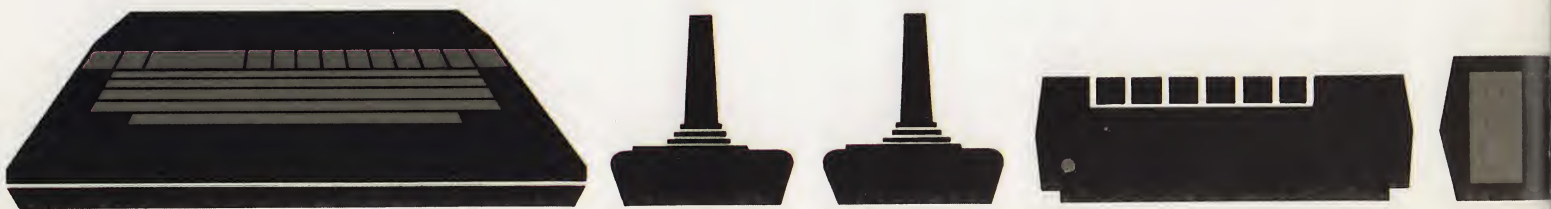
A program recorder uses inexpensive cassette tape, which is widely available and easy to use. And it can replay sound recorded along with other data on the cassette tape. A program recorder is also the most economical way to store information.

But most people experienced with computers prefer to store information on a disk drive. To appreciate why, it's necessary to understand how each device works.

A program recorder—like a conventional cassette tape recorder—stores data serially. That is, it saves data in se-

quence on tape. If you've stored five documents on a cassette and you want to recall the last one recorded, you first have to advance the tape past the first four to find the information you want. This can be a time-consuming and imprecise process.

A disk drive can load the same program in a few seconds. That's because information on a "floppy" diskette, a thin, pliable sheet of mylar covered with magnetic recording material, is stored in sectors similar to the cuts on a record. Just as you can set the needle down on any band on a record—without listening to the other songs—a disk drive can go directly to any sector of a diskette and "play" that information into your computer's memory.



This is one reason why a disk drive stores data so quickly. A disk drive also records an index on one sector of each diskette. This directory tells the computer the exact location of each file of information.

Of course, disk drives are more expensive than program recorders. But for speed, power, and convenience, you may find a disk drive a worthwhile investment.

PRINT IT SEVERAL WAYS

A printer can be a practical addition to your ATARI 1200XL Computer system. It lets you take a close look at what you've written, analyze or make notes on program listings, or print letters and reports.

Your particular application will determine which type of printer you'll need.

If the majority of your printing will be program listings, then a 40-column printer will probably meet your needs. Some even possess four-color plotting capability that allows them to draw charts and graphs.

Eighty-column printers, however, offer a variety of features that make them worth the investment to many ATARI Computer owners. Eighty-column (full-page) printers are necessary if you need to produce letters or reports. Full-size printers are also necessary if you want to print the bookkeeping records produced by an accounting program.

TELECOMMUNICATIONS BRIDGES THE GAP

Intrigued by the promises of high-speed home information services? There's a peripheral device called a *modem* that lets you transmit and receive information from these and other sources over standard telephone lines.

The word modem stands for "modulator-demodulator." A modem translates—or modulates—digital information from your computer into signals that can be sent

over phone lines. It also demodulates incoming signals from the phone into digital information for your computer. This two-way translation process allows your computer to "talk" to other computers all over the world.

An ATARI modem gives you access to computer data bases, transportation and entertainment schedules, and a variety of specialized information systems such as the COMPUSERVE INFORMATION SERVICE* and THE SOURCE, AMERICA'S INFORMATION UTILITY.**

*Trademark of Compuserve, Inc., an H&R Block company

**THE SOURCE and AMERICA'S INFORMATION UTILITY are service marks of Source Telecomputing Corporation, a subsidiary of The Reader's Digest Association, Inc.



**GETTING TOGETHER
WITH OTHER ATARI
COMPUTER OWNERS**

It's well worth your while to get to know other ATARI Computer owners—many are experienced programmers who have developed exciting games and helpful programs of their own.

Chances are there's an ATARI Users' Group in your area—more than 250 of these clubs throughout the world meet periodically to exchange programs and ideas. You'll find that other ATARI Computer owners are eager to help the beginning or would-be programmer.

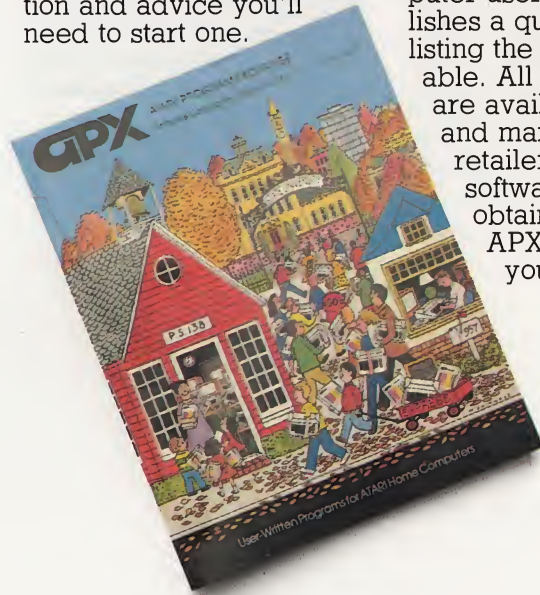
Many local users' groups also publish regular newsletters which feature articles about other ATARI Computer users and the programs they've written, scheduled meetings, and reviews of new hardware and software products for your ATARI Computer.

If you can't locate the ATARI Users' Group in your area, contact the ATARI User Group Support Staff at 60 E. Plumeria, Box 50047, San Jose, CA 95150. They'll put you in contact with a local users' group—or, if there isn't one in your area, give you information and advice you'll need to start one.

**THE ATARI
PROGRAM EXCHANGE
(APX)**

APX—the ATARI Program Exchange—offers a good sampling of the programs ATARI Home Computer owners have written. Atari created APX to distribute user-written software for ATARI Computer users.

APX holds quarterly contests to pick the best of the programs developed by ATARI Computer users, then publishes a quarterly catalog listing the products available. All APX programs are available by mail, and many ATARI retailers carry APX software. You can obtain copies of the APX catalog at your ATARI retailer.



IMPORTANT INFORMATION:

Like any electrical appliance, this ATARI Home Computer uses and produces radio frequency energy. If it is not installed and used properly according to the instructions in this guide, the equipment may cause interference with your radio or television reception.

It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of the FCC rules. These rules are designed to provide reasonable protection against such interference when the equipment is used in a residential setting. However, there is no guarantee that interference will not occur in a particular home or residence.

If you believe this equipment is causing interference with your own radio or television reception, try turning the equipment on and off.

If the interference problem stops when the equipment is turned off, then the equipment is probably causing the interference. With the equipment turned on, you may be able to correct the problem by trying one or more of the following measures:

- Reorient the radio or television antenna.
- Reposition the equipment in relation to the radio or television.
- Move the equipment away from the radio or television.

WARNING: Only peripheral equipment certified to comply with Class B regulations as defined in Subpart J of Part 15 of the FCC rules should be attached to this computer.

Operation of noncertified peripherals with this computer is likely to result in interference to radio and TV reception.

Every effort has been made to ensure the accuracy of the product documentation in this manual. However, because we are constantly improving and updating our computer software and hardware, Atari, Inc. is unable to guarantee the accuracy of printed material after the date of publication and disclaims liability for changes, errors or omissions.

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